

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 05-304334  
(43)Date of publication of application : 16.11.1993

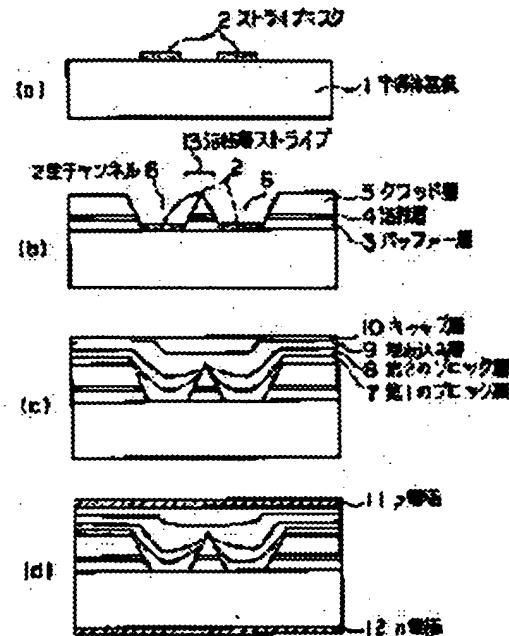
(51)Int.CI. H01S 3/18

(21)Application number : 04-109486 (71)Applicant : NEC CORP  
(22)Date of filing : 28.04.1992 (72)Inventor : TERAKADO TOMOJI

## (54) FABRICATION OF SEMICONDUCTOR LASER

### (57)Abstract:

**PURPOSE:** To mass produce high performance semiconductor lasers excellent in environmental resistance at low cost.  
**CONSTITUTION:** Two stripe masks 2 formed in (011) direction on (100) face of a semiconductor substrate 1 composed of n-InP are employed as selection masks in the formation of an active layer stripe 13 through metal organic vapor phase epitaxial growth, the stripe 2 is then removed and filling growth is performed. Since metal organic vapor phase epitaxial growth is employed, large area uniform growth is realized on a circular wafer having diameter or two inches or more. Furthermore, since the active layer stripe 13 is formed through selective growth employing a mask, side wall of the active layer stripe 13 can be made smooth in the order of atomic layer. Since waveguides of semiconductor laser do not scatter and loss thereof is reduced, oscillation threshold current and operating current of semiconductor laser can be lowered.



## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]